REMARKS/ARGUMENTS

Claims 1-19 are pending in the present application. Claims 1, 7, 9, 16 and 18 are amended. Support for amended claims 1, 9, and 18 may be found in claims 1, 9, and 18 as originally filed. Support for amended claims 7 and 16 may be found in the description of record at page 3 lines 15-16. No new matter is added. Reconsideration of the claims is respectfully requested.

I. Objection to Claims 1, 17, and 18

I.A. Claim 1

The examiner stated that claim 1 is objected to for informality. In response, the claim has been amended to overcome this objection.

I.B. Claims 17-18

The examiner stated that claims 17-18 are objected to for informality. The examiner has requested the insertion of a blank line between the claims for ease in distinguishing them. Applicants have done so, thus overcoming this objection.

II. 35 U.S.C. § 112, Second Paragraph: Claims 7, 9, 16, and 18

The examiner rejected claims 7, 9, 16, and 18 under 35 U.S.C. § 112, second paragraph, as being indefinite. With regard to claim 7, Applicants have removed the phrase "can be" and also rewritten the claim to claim dependency from claim 1, rather than claim 6, "...using fingerprint information from a cache copy of the URL document to generate a fingerprint." Claim 16 has been amended in a similar fashion.

With regard to claim 9, amendments have been provided to remove use of the term "preferably" and provide a reference of "...a current fingerprint database..." Claim 18 has been amended in a similar fashion.

Applicants have addressed these rejections appropriately. Therefore, the rejection of claims 7, 9, 16, and 18 under 35 U.S.C. § 112, second paragraph has been overcome.

III. 35 U.S.C. § 102, Asserted Anticipation: Claims 1-6, 8-15, and 17-19

The examiner rejected claims 1-6, 8-15, and 17-19 under 35 U.S.C. § 102 as anticipated by *Smith* et al., Method for Preserving Referential Integrity within Web Sites, U.S. Patent No. 6,578,078 (June 10, 2003) (hereinafter "*Smith*"). This rejection is respectfully traversed. The examiner states:

> "As to claim 1, Smith discloses a method of processing a URL request containing a URL for an intended URL document (Col. 1 1, ln. 57-61), comprising:
>
> retrieving fingerprint information relating to the URL request (Fig. 4, especially items 52,54, and 56; Col. 16, In. 5-1 6; back link information corresponds to fingerprint information);
>
> identifying that the intended URL document is not the current document located at the URL (Col. 8, In. 48-59);
>
> locating current fingerprint information which matches the retrieved fingerprint and has a corresponding URL document (Abstract, In. 1-9; Col. 16, In. 5-16); and returning the corresponding URL document in answer to the request (Fig. 4,especially items 52, 54, and 60; Abstract, In. 1-9; Col. 16, In. 5-16).

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A prior art reference anticipates the claimed invention under 35 U.S.C. § 102 only if every element of a claimed invention is identically shown in that single reference, arranged as they are in the claims. *In re Bond*, 910 F.2d 831, 832, 15 U.S.P.Q.2d 1566, 1567 (Fed. Cir. 1990). All limitations of the claimed invention must be considered when determining patentability. *In re Lowry*, 32 F.3d 1579, 1582, 32 U.S.P.Q.2d 1031, 1034 (Fed. Cir. 1994). Anticipation focuses on whether a claim reads on the product or process a prior art reference discloses, not on what the reference broadly teaches. *Kalman v. Kimberly-Clark Corp.,* 713 F.2d 760, 218 U.S.P.Q. 781 (Fed. Cir. 1983). In this case, each and every feature of the presently claimed invention is not identically shown in the cited reference, arranged as they are in the claims.

Claim 1 as amended is as follows:

> A method of processing a URL (uniform resource location) request containing a URL for an intended URL document, comprising:
>
> retrieving fingerprint information relating to the URL request;
>
> identifying that the intended URL document is not the current document located at the URL;
>
> locating current fingerprint information which matches the retrieved fingerprint and has a corresponding URL document; and returning the corresponding URL document in answer to the request.

Under the standards of *In re Bond*, *Smith* does not anticipate claim 1 because *Smith* does not teach the claimed features of "retrieving fingerprint information", "identifying that the intended URL document is not the current document located at the URL", and "locating current fingerprint information which matches the retrieved fingerprint and has a corresponding URL document; and returning the corresponding URL document in answer to the request." The examiner asserts otherwise, citing various portions of *Smith*; however, the examiner is mistaken regarding the teachings of *Smith* vis-à-vis these claim features. Applicants address each claim feature in turn.

III.A. *Smith* Does Not Teach "Retrieving Fingerprint Information"

Smith does not teach the feature of "retrieving fingerprint information." The examiner asserts otherwise, opining that "back link" information of *Smith* corresponds to "fingerprint information", as claimed. However, as shown below, this assertion is incorrect.

Smith, is directed toward maintaining reference information after a document has been moved. For example, *Smith* states at at col. 16 lines 5-16 that:

> "...Each web document has an associated contextual information file that is stored in a "_vti_cnf" subfolder that shares the same folder or subfolder as the document. For instance, in the foregoing example, there is a _vti_cnf subfolder stored within the same folder as main.htm and linked.htm. The contextual information file comprises a set of "meta-data" that include parameters relating to the resource, such as the last time the resource was modified, the author's name, the size of the resource, etc., and back link information so that hyperlinks in referring documents can be updated to map to the new location for a moved document."

Smith teaches use of descriptive information, such as location information found in hyperlinks of a contextual information file. The back links of *Smith* are references that relate the instant web document to other documents or resources that reference the instant web document. The back links of *Smith* provides information relating to where the instant web document is referenced by other documents or resources. However, *Smith* does not provide information on the actual content of the instant web document. The claimed fingerprint information is a representation of the content of the document. The back links of *Smith* are therefore not equivalent to the fingerprint as claimed. *Smith* therefore does not contain the claimed feature of "...retrieving fingerprint information relating to the URL request..." Accordingly *Smith* does not anticipate claim 1.

III.B. *Smith* Does Not Teach "Identifying that the Intended URL Document Is Not the Current Document Located at the URL."

Smith does not teach "identifying that the intended URL document is not the current document located at the URL." Instead, *Smith* deals with the reference change of a document due to a location change or a rename causing a new storage identifier. *Smith* tracks the movement of a document and not changes in the content. *Smith* at col. 8 lines 48-59 tracks the movement of resources, in the manner described below:

> "…Web sites that are running the RPE compile these messages, and store them in a database. When resources are moved on these web sites, the URLs for the resources typically must be changed. The RPE for the site tracks the movement of the resources on that site and the associated changes to the URLs and sends messages containing the new location of the moved resources to the browsers in the client computers that have previously sent messages to that server concerning use or storage of the URL that previously was mapped to the moved resource. The browser in the client computer can then update the URL reference for the favorite site or document based on this information."

Smith does not examine document content and cannot therefore determine if a document is "current" as claimed. Therefore *Smith* does not teach the claimed feature of "identifying that the intended URL document is not the *current* document located at the URL," as recited in claim 1. Accordingly, *Smith* does not anticipate claim 1.

III.C. *Smith* Does Not Teach "Locating Current Fingerprint Information which Matches the Retrieved Fingerprint and has a Corresponding URL document; and returning the Corresponding URL Document in Answer to the Request."

Smith does not examine document content to generate a fingerprint and cannot therefore determine if a fingerprint for a document is the same as claimed. *Smith* does not teach, "locating current fingerprint information which matches the retrieved fingerprint and has a corresponding URL document; and returning the corresponding URL document in answer to the request." Therefore *Smith* does not have the claimed feature of, "locating current fingerprint information which matches the retrieved fingerprint and has a corresponding URL document; and returning the corresponding URL document in answer to the request," as recited in claim 1. Accordingly, *Smith* does not anticipate claim 1.

IV. 35 U.S.C. § 103, Asserted Obviousness: Claims 7 and 16

The examiner rejected claims 7 and 16 under 35 U.S.C. § 103 as obvious over *Smith* and *Najork*, System and Method for Distributed Web Crawling, U.S. Patent No. 7,139,747 (November 21, 2006) (hereinafter "*Najork*"). This rejection is respectfully traversed. The examiner states:

> "As to claims 7 and 16, Smith discloses the invention substantially as in parent claims 6 and 15, including a cache copy of the URL document (Col. 1 I, In. 44-47), but is silent on using the cache copy to generate a fingerprint. However, Najork discloses using a cache copy to generate a fingerprint (Col. 8,In. 8-23).
> It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Smith by using a cache copy to generate a fingerprint as taught by Najork in order to avoid unnecessary processing (Col. 8, In. 11-17)"

Office action dated July 12, 2007, page 6.

The examiner bears the burden of establishing a *prima facie* case of obviousness based on prior art when rejecting claims under 35 U.S.C. § 103. *In re Fritch*, 972 F.2d 1260, 23 U.S.P.Q.2d 1780 (Fed. Cir. 1992). The prior art reference (or references when combined) must teach or suggest all the claim limitations. *In re Royka,* 490 F.2d 981, 180 USPQ 580 (CCPA 1974). In determining obviousness, the scope and content of the prior art are... determined; differences between the prior art and the claims at issue are... ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background the obviousness or non-obviousness of the subject matter is determined. *Graham v. John Deere Co.*, 383 U.S. 1 (1966). Often, it will be necessary for a court to look to interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art, all in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue. *KSR Int'l. Co. v. Teleflex, Inc.*, No. 04-1350 (U.S. Apr. 30, 2007). Rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness. *Id.* (citing *In re Kahn*, 441 F.3d 977, 988 (CA Fed. 2006)).

With regard to claim 7, claim 7 as currently amended, states:

> A method as in claim 1 wherein, responsive to no URL document being at the URL location, generating a fingerprint by automatically forwarding the URL request to a new URL using fingerprint information from a cache copy of the URL document.

Under the standards of *KSR Int'l.*, there is no reason to combine *Smith* and *Najork* because *Smith* does not teach the claimed features of, "retrieving fingerprint information," "identifying that the intended URL document is not the current document located at the URL," and "locating current fingerprint information which matches the retrieved fingerprint and has a corresponding URL document; and returning the corresponding URL document in answer to the request." Further *Najork* does not teach "... using fingerprint information from a cache copy of the URL document." Accordingly, the proposed combination of references, considered as a whole, does not teach or suggest the features of the claims. Hence, the examiner failed to state a prima facie obviousness rejection against the claims.

The examiner asserts otherwise regarding the teachings of *Najork*, citing various portions of *Najork*. However, the examiner is mistaken regarding the teachings of *Najork* vis-à-vis the claim features.

IV.A. *No Proper Reason Stated Under KSR*

With regard to claims 7 and 16, the examiner failed to state a proper reason to combine the references under the standard of *KSR Int'l.* Rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness. *KSR Int'l. Co. v. Teleflex, Inc.*, No. 04-1350 (U.S. Apr. 30, 2007). (citing *In re Kahn*, 441 F.3d 977, 988 (CA Fed. 2006)).

Regarding a reason to combine the references, the examiner states that, "the motivation for doing so would have been to "...modify the teaching of *Smith* by using a cache copy to generate a fingerprint as taught by *Najork* in order to avoid unnecessary processing." However, this reason is not a rational underpinning to support the legal conclusion of obviousness of claims 7 and 16 in view of the combination of the references considered as a whole.

As a first matter, *Smith* fails to provide the foundation on which the asserted teaching of *Najork* can build. As shown above, *Smith* does not teach features as claimed of *"... retrieving fingerprint information relating to the URL request; identifying that the intended URL document is not the current document located at the URL; locating current fingerprint information which matches the retrieved fingerprint and has a corresponding URL document; and returning the corresponding URL document in answer to the request.*" Therefore *Smith* does not provide the framework, upon which one skilled in the art could modify, using the teaching of *Najork*, to achieve the results of the claimed invention.

In a second matter regarding *Najork*, *Najork* also fails to teach features of the claimed invention, contrary to the belief of the examiner. The examiner cites a portion of *Najork* at col. 8 lines 8-23:

> "In an alternative embodiment, illustrated in FIG. 8, in addition to buffer B 172, a cache C 174 of "popular" URL's is included. Cache C, in this embodiment, is one of the data structures 113 (FIG. 2) for storing known addresses. The fingerprint for each URL from the address distribution procedure or from another web crawler 141 is first compared to fingerprints in cache C 174, to see whether the URL is a "popular" URL that has already been downloaded (or scheduled for downloading) and therefore need not be processed any further. If the fingerprint is not in cache C 174, the address filter then goes on to compare the fingerprint to the fingerprints in buffer B 172, as discussed previously. Use of the cache C 174 significantly reduces the rate at which the buffer B 172 is filled with fingerprints, which reduces the frequency of merges with the disk file and thus improves the efficiency of the address filter."

However, *Najork* defines a fingerprint different from the claimed fingerprint, as in *Najork* at col. 5 lines 22-27

> "In the preferred embodiment, an intermediate value V is first produced by *converting the host computer identifier into a fixed length numeric representation, or "hash value." The hash value, also herein called the fingerprint*, may be generated by applying a predefined hash function to the

> specified URL U's host computer identifier." (emphasis provided)

Further, *Najork* describes at col. 5 lines 33-39 a calculation of a host identifier as

> "After the host identifier of the specified URL U has been converted into the intermediate value V, the web crawler generates the representation of the host computer identifier by computing a function of the host computer identifier whose result is an integer value that is a member of a set of n predefined distinct values, where n is the number of web crawlers in the web crawler system."

Therefore, *Najork* does not use the content of a cache to generate a fingerprint as in the claimed invention. What the examiner alleges is the "fingerprint" of *Najork* is derived from a host system identifier and comparisons of produced fingerprints are performed on a cache version of the previously computed information. *Najork* therefore operates in a different manner from the claimed invention, to produce a different result. *Najork*, in addition fails to provide the features of the claimed invention missing from *Smith,* as previously identified, to achieve the claimed elements. The suggested combination of *Smith* and *Najork* therefore cannot produce the results of the claimed invention due to the lack of features as shown in *Smith* and the different operation of *Najork.*

Therefore, the examiner's statement does not provide a rational underpinning to support the legal conclusion of obviousness, as required by *KSR Int'l.* Accordingly, under standards of *KSR Int'l.*, the examiner failed to state a prima facie obviousness rejection against claims 7 and 16.

IV.B. No Reason To Combine Exists

No Reason Exists To Combine the References Under the Standards of KSR Int'l.

Additionally, no rational reason exists to combine the references to achieve the invention of claims 7 and 16 when the references are considered as a whole. *Smith* is directed to maintenance of referential integrity of URLs. *Najork* is directed to use of a host computer identifier as an aid in processing web pages resulting from crawling the web. The two references have nothing to do with each other, other than that both references require the use of a computer to perform the disclosed methods.

Because the references have nothing to do with each other, one of ordinary skill could find no reason to combine the references to achieve the invention of claims 7 and 16, when the references are considered together as a whole. Accordingly, under the standards of *KSR Int'l.*, the examiner failed to state a *prima facie* obviousness rejection against claims 7 and 16. Therefore, the rejection of claims 7 and 16 under 35 U.S.C. § 103 has been overcome.

IV.C. *Smith* Is Non-Analogous Art

The examiner has failed to state a *prima facie* obviousness rejection because *Smith* is non-analogous art. In order to rely on a reference as a basis for rejection, the reference must be either in the applicant's field of endeavor or, if not, then reasonably pertinent to the particular problem with which the inventor was concerned. *In re Oetiker*, 977 F.2d 1443, 24 U.S.P.Q.2d 1443, 1445 (Fed. Cir. 1992); *In re Deminski*, 796 F.2d 436, 442, 230 U.S.P.Q. 313, 315 (Fed. Cir. 1986).

In the case at hand, *Smith* is not in the same field of endeavor as claim 1, and *Smith* is not reasonably pertinent to the particular problem with which Applicants were concerned. With regard to the first part of the test for analogous art, *Smith* is not in the same field of endeavor as claim 1 because *Smith* is in the field of maintaining integrity of uniform resource locators. In contrast, claim 1 is in the field of processing a URL request based on fingerprint information. The two fields are completely distinct from each other because the methods and techniques taught by the two references are completely distinct from each other. Thus, *Smith* fails the first test of *In re Oetiker*.

With regard to the second part of the test for analogous art, *Smith* is not reasonably pertinent to the particular problem with which Applicants were concerned. As established above, *Smith* is in the field of maintaining integrity of uniform resource locators. Specifically, *Smith* is directed to the problem of updating URLs For example, *Smith* at col. 8 lines 48-59 provides that:

> "...When resources are moved on these web sites, the URLs for the resources typically must be changed. The RPE for the site tracks the movement of the resources on that site and the associated changes to the URLs and sends messages containing the new location of the moved resources to the browsers in the client computers that have previously sent messages to that server concerning use or storage of the URL that previously was mapped to the moved resource. The browser in the client computer can then update the URL reference for the favorite site or document based on this information."

In contrast, claim 1 is directed to processing a URL request based on fingerprint information.. The problem addressed by *Smith* is completely distinct from the problem addressed by claim 1. For this reason, *Smith* is not reasonably pertinent to the particular problem with which Applicants were concerned. Therefore, *Smith* fails the second part of the *In re Oetiker* test for analogous art.

Therefore, under the standards of *In re Oetiker*, *Smith* is non-analogous art to claim 1. Accordingly, the examiner failed to state a *prima facie* anticipation rejection against claim 1.

Further, the rejections of claims 2-6, 8-15 and 17-19 all rely on *Smith*. Therefore, because *Smith* is non-analogous art, the examiner also failed to state a *prima facie* anticipation rejection against these claims. Independent claims 10 and 19 have subject matter similar to independent claim 1 and therefore overcome the rejection. Depending claims 2-9, and 11-18 inherit the claimed features of claims 1 and 10, respectively, and therefore also overcome the rejections. Accordingly, this rejection is overcome.

V. **Conclusion**

The subject application is patentable over *Smith* and *Najork*, and is now in condition for allowance. The examiner is invited to call the undersigned at the below-listed telephone number if in the opinion of the examiner such a telephone conference would expedite or aid the prosecution and examination of this application.

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Respectfully submitted,

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